

539,969

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
1 July 2004 (01.07.2004)

PCT

(10) International Publication Number  
**WO 2004/055473 A1**

(51) International Patent Classification<sup>7</sup>: **G01B 9/02**

(21) International Application Number:  
PCT/IB2003/005242

(22) International Filing Date:  
17 November 2003 (17.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
02080389.6 18 December 2002 (18.12.2002) EP

(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];  
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HENDRIKS,**

**Robert, F., M.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **LENDERINK, Egbert** [NL/NL];  
c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

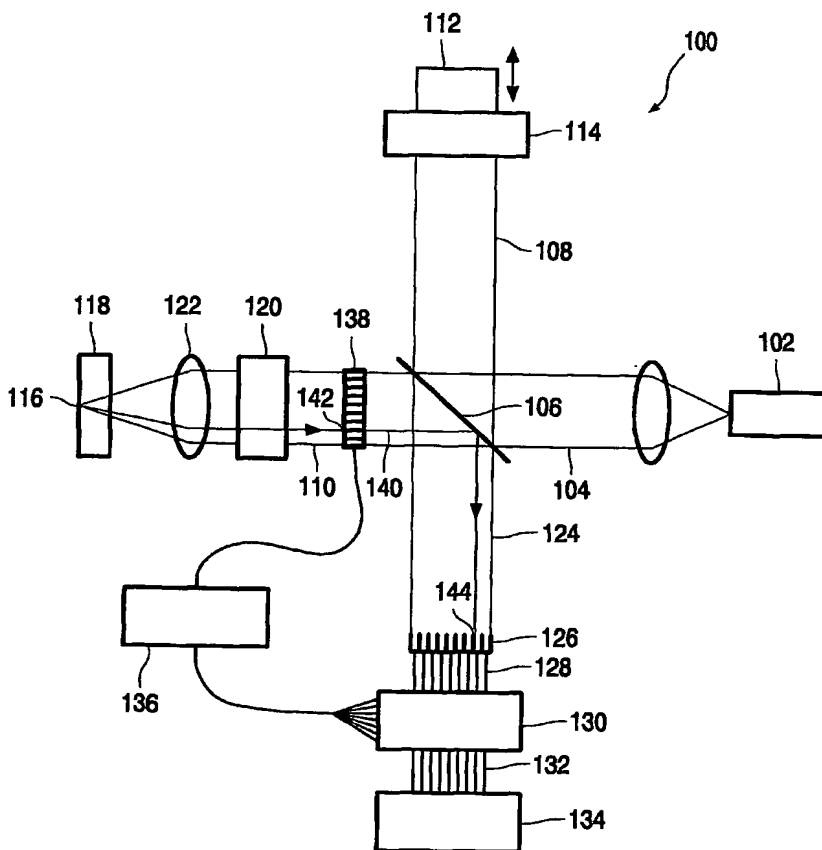
(74) Agent: **COHEN, Julius, S.**; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: METHOD AND ARRANGEMENT FOR OPTICAL COHERENCE TOMOGRAPHY



(57) Abstract: The invention relates to a method for optical coherence tomography comprising the steps of: - providing of a reference light beam and a measurement light beam, - combining of the reference light beam and the measurement light beam to provide a combined light beam, - modulating of the reference light beam, - sampling of the combined light beam to measure an amplitude of an intensity variation for each sampling position, - adding of the amplitudes to provide an intensity signal for one picture element.- correcting deformations and aberrations either in the electronic, or in the optical domain

WO 2004/055473 A1